



# INCLUSION OF STANDARD OCCUPATIONAL CODES AND HOURLY PAY IN THE UNEMPLOYMENT INSURANCE WAGE REPORT

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## **Introduction**

The mission of the South Carolina Department of Employment and Workforce (DEW) is to promote and support an effective, customer-driven workforce system that facilitates financial stability and economic prosperity for employers, individuals, and communities. The mission is accomplished through activities completed in the various divisions within the agency particularly the Unemployment Insurance (UI), the Division of Workforce and Economic Development (WED), and the Business Intelligence Department (BID). The Unemployment Insurance is a nationwide program created to financially help eligible individuals, who are unemployed through no fault of their own, while they actively search for new work. Employers finance the UI program through tax contributions, and DEW is responsible for the collection, accounting and auditing functions of South Carolina's UI tax program. DEW administers the UI program according to the guidelines established by the South Carolina Code of Laws, Title 41, and South Carolina Code of Regulations, Chapter 47. (South Carolina Department of Employment and Workforce)

The Division of Workforce and Economic Development (WED) is responsible for the administration of federal programs which provide funding and services to help businesses meet their need for skilled workers and individuals secure training to prepare for work. The SC Department of Workforce Business Intelligence Department (BID) collects, analyzes and disseminates employment statistics, job forecasts, wages, demographics and other labor market information for the state to help public and private organizations, researchers and other groups better understand today's complex labor force. The department works in cooperation

with the US Department of Labor's Bureau of Labor Statistics (BLS). The data helps employers and job seekers make career, education and economic development decisions. Understanding employment and statistical trends help promote stable employment and economic growth.

All three of these departments work in conjunction with one another to facilitate not only the mission of the agency, but also federal mandates that states are required to perform to receive federal funding for certain programs. While researching various topics to explore for the Certified Management Program (CPM) it became clear that all three departments could benefit by an enhancement to the UI Quarterly Unemployment Wage Report that employers submit each quarter. That enhancement is the purpose of my research project. As economies change and technology grows, so does the barriers to employment. Every day more companies are forced to lay off or close due to the lack of skilled workers or non-competitive salaries as more technology efficient competitors join the economy.

### **Problem Statement**

Currently, the Unemployment Insurance system does not capture occupational codes or hourly rate of pay data for employers. By them not collecting the data, analysts are limited in the amount of available data at the local level and often have to make economic decisions based on an aggregated metropolitan area or State-wide level. These aggregations do not provide the local areas with data relative to their specific area but on a larger scale. The incorporation of the Standard Occupational Codes (SOC) and the Hourly Rate of Pay on the Unemployment Wage Report would allow the agency to provide more localized statistical data that would aide in the economic development of businesses in South Carolina. This inclusion

will help with performance measures of workforce programs particularly associated with the Workforce Innovation and Opportunity Act (WIOA); furthermore, increasing the required Federal Response rate for the Occupational Employment Statistics (OES) program.

The overall intent of this research project is to show the impact on economic development analyses of businesses by incorporating SOC and the Hourly Rate of Pay on the Quarterly Unemployment Wage Report. There is also an underlying attempt to show additional performance measures for workforce programs and to illustrate its effect on the required Federal Response rate for the Occupational Employment Statistics program.

### **Data Collection**

A sample of random employers who have reported their company's standard occupational codes (SOC) and hourly rate of pay as well as their quarterly unemployment insurance wage report are used in this project. The data being compiled are the employer's quarterly unemployment wage records which have been enhanced to include not only the social security numbers (SSN) and wages but also to include the SOC codes along with the hourly pay for each employee. I used the stratified sampling method to randomly selected six employers in a particular industry. After the initial six employers had been selected I then chose two employers to compare based on the county in which the business was located, either metropolitan or non-metropolitan area. Due to the random selection of the original six there were duplicate counties in the metropolitan areas thereby necessitating that I further reduce the sample size to two, one in a smaller non-metropolitan area and one in the larger metropolitan area to compare. The randomized selection of the sample was used in efforts to

remove bias from the results. If I were to select a specific employer in each area, I could potentially skew the results of the project analysis. See Appendices A & B.

### **Data Analysis**

The analysis shows that the influence of enhancing the quarterly unemployment wage report of the employer in the smaller area has greatly affected the amount of statistical data which can be used by the UI, WED and BI divisions of the agency. Data users must have accurate, timely, localized data to support effective decision-making for employers, employees, job seekers, educators, trainers, students, and policy makers. Enhanced UI wage records could benefit employers and employees by: (1) providing a more skilled workforce in response to employer needs; (2) improving business recruitment/retention/expansion; (3) providing data on market-based compensation/wage rates by occupation; (4) ensuring accountability for education/training providers for performance measurement. Enhanced wage information will also improve available consumer information for students and job seekers as they seek career counseling on what to study, where to study, and how much to spend to study based on expected employment opportunities/wages. They must also consider the supply/demand of labor in an area. At first glance, the data shows how the economic development analysis available for a smaller county in the state has been improved. Currently, without the enhancement data the only data available for the smaller area would be at the aggregated statewide level which would not tell an economic developer anything about the economic health of a particular county. Now that the quarterly wage data has been enhanced to include the other data types there is publishable data at the smaller county level which we could use as

a comparison to a larger area. Many smaller counties are limited in the amount of available data relative to their economic status due to Bureau of Labor Statistics (BLS) confidentiality restrictions which prohibit some data being published other than the aggregated totals of the State or Metropolitan Area. Due to these limitations, a smaller county may be excluded by prospective businesses looking to expand or develop in South Carolina because there is no data to show how competitive the economy is in a particular area. Although, the overall health of an economy is not based solely on the wages that are paid in a particular area it is a leading indicator used to measure the economic performance of an area. Market-based compensation is a method of utilizing market pay data to evaluate an employer's pay levels. This allows employers to make a position's pay level more or less competitive depending on their company policies. The data collected shows the average pay in the smaller area to be lesser than the larger area of the state but the standard occupational code to be comparable with larger area of the state. (See Figure 1 below)

**Figure 1**

SOC CODE	TITLE	LARGER COMPANY	SMALLER COMPANY
47-2011	Boilermaker	\$56.88	\$22.62
47-2031	Carpenter	\$59.91	\$15.89
47-2051	Concrete Finisher	\$31.53	\$16.73
47-2111	Electrician	\$60.14	\$49.28
49-3042	Equipment Mechanic	\$20.18	\$17.12
47-2073	Equipment Operator	\$37.03	\$25.46
47-1011	General Supervisor	\$56.69	\$49.39
47-2171	Ironworker Reinforcing	\$25.17	\$18.17
47-4099	Construction Support	\$39.07	\$30.04
47-2051	Mason	\$58.34	\$36.00
49-9044	Millwright	\$49.87	\$39.07
43-1011	Operations Support	\$21.14	\$10.08
47-2152	Pipefitter	\$17.40	\$11.76
17-3031	Survey Crew	\$38.04	\$38.41

47-2073	Truck Driver	\$32.98	\$30.39
47-2073	Utility	\$53.14	\$42.94
51-4121	Welder	\$37.45	\$28.09
11-3051	Quality Control Specialist	\$59.11	\$40.23
17-2131	Material Manager	\$30.00	\$25.76
11-3021	Information Systems Manager	\$52.55	\$47.47
17-3023	Engineering Tech	\$37.46	\$28.86
43-9199	Administrative Assistant	\$32.86	\$30.39
13-2011	Accountant	\$54.75	\$44.33

In Figure 2 we see that the pay scale for the larger company is above the statewide average hourly wage at some of the occupations while many of the occupations in the smaller area fall within the average or slightly below. These differences occur even in occupations where there is a substantial amount of estimated employment to fill the supply and demand needs of a particular occupation. This is indicative of an area that would benefit from using the market-based compensation method to decide whether or not to relocate or build in the smaller area. Without the enhanced quarterly unemployment insurance data these statistics would not be available at the local area because there would not be enough data to produce the estimated employment or wage data for the various occupations.

**Figure 2**

<b>SOC Code</b>	<b>Standard Occupational Classification (SOC) - Group and Occupational Title</b>	<b>Estimated Employment</b>	<b>Median hourly wage</b>	<b>Mean hourly wage</b>	<b>Annual mean wage</b>
11-3021	Information Systems	3,020	\$ 53.43	\$ 57.07	\$ 118,710
11-3051	Quality Control	2,920	\$ 50.59	\$ 53.20	\$ 110,650
13-2011	Accountant	7,306	\$ 27.04	\$ 29.49	\$ 61,340
17-2131	Material Manager	500	\$ 34.64	\$ 38.11	\$ 79,270
17-3023	Engineering Tech	1,700	\$ 26.65	\$ 27.86	\$ 57,960
17-3031	Survey Crew	1,040	\$ 16.67	\$ 17.78	\$ 36,980
43-1011	Operations Support	25,280	\$ 22.80	\$ 24.45	\$ 50,850
43-9199	Administrative Assistant	1,240	\$ 16.88	\$ 17.98	\$ 37,400
47-1011	General Supervisor	9,570	\$ 26.54	\$ 27.92	\$ 58,080
47-2011	Boilermaker	240	\$ 26.34	\$ 24.30	\$ 50,540
47-2031	Carpenter	8,380	\$ 17.92	\$ 19.02	\$ 39,550
47-2051	Concrete Finisher	1,670	\$ 16.62	\$ 17.03	\$ 35,420
47-2051	Mason	1,670	\$ 16.62	\$ 17.03	\$ 35,420
47-2073	Equipment Operator	5,390	\$ 17.37	\$ 18.28	\$ 38,020
47-2073	Truck Driver	5,390	\$ 17.37	\$ 18.28	\$ 38,020
47-2073	Utility	5,390	\$ 17.37	\$ 18.28	\$ 38,020
47-2111	Electrician	7,520	\$ 20.36	\$ 20.94	\$ 43,560
47-2152	Pipefitter	4,000	\$ 20.31	\$ 20.70	\$ 43,060
47-2171	Ironworker Reinforcing	390	\$ 25.91	\$ 22.67	\$ 47,150
47-4099	Construction Support	**	\$ 21.16	\$ 22.39	\$ 46,570
49-3042	Equipment Mechanic	1,840	\$ 22.24	\$ 22.42	\$ 46,640
49-9044	Millwright	1,060	\$ 21.95	\$ 22.77	\$ 47,360
51-4121	Welder	6,630	\$ 18.43	\$ 20.22	\$ 42,060
Note: ** Denotes occupation where estimates for employment were not released.					

The data not only increased the amount of local analyses that could be used to attract prospective businesses to the county; it also indicted that because the same SOC codes were used by both the larger and smaller company that the same job skills are available in both areas. Thereby, alluding to the idea that if a prospective company selects the smaller area for their business they may be able to offer less pay but hire more employees which could reduce the number of unemployed persons in the area. This also could lead to opportunities for the prospective company to offer internships or on the job training with the local education systems to develop workers while they are enrolled in school.



Furthermore, the data collected also indicates that there may be an opportunity for the workforce programs to collaborate with higher educational partners and businesses to tweak there programs to incorporate incentives for employees to work toward obtaining advance degrees or even offering apprenticeships to fill some of the advanced occupations that were in the larger company but not in the smaller firm. (See Figure 3) As a result, this will improve the skills required by some of the more technological advanced companies that are interested in developing in the state. This data could be used to strengthen the performance measures used by the workforce programs to secure Federal funding to aid and develop local areas.

**Figure 3**

SOC	Titles
17-2151	Geological Engineer
19-2041	Environmental Specialist
27-1021	Design Engineer
17-3011	GIS Technical Architect
17-2161	Nuclear Power Engineer
17-3011	Structural Analysis Engineer
17-2071	Electrical Engineer

Not only has the data shed more light on the smaller county's need for additional training; it also revealed a positive impact on the required Bureau of Labor Statistics (BLS) Federal Response rate for the Occupational Employment Statistics (OES) program. The OES

program conducts a semi-annual mail survey designed to produce estimates of employment and wages for specific occupations. The OES program collects data on wage and salary workers in nonfarm establishments in order to produce employment and wage estimates for occupations. The OES program produces these occupational estimates by geographic area and by industry. It is important to note that Federal statutes mandate the states meet a 75 percent rate of responses from employers in either the number of units surveyed or the number of employment that is reported by the employers to the Occupational Employment Statistics program. Collection of this data is often difficult because it requires staff to individually contact the employers to obtain their data which puts a burden on the states to accomplish because of budget cuts and downsized employment and there often is not enough staff to collect the necessary data. Collection of the SOC codes and hourly rate of pay on the quarterly wage records do four things: (1) increase the amount of occupational employment and wage data available for publication by geographic areas and industries; (2) offer a more efficient way of collecting data thereby, reducing the amount of time that OES analysts spend on trying to get the employers to report to the survey; (3) the collection of the data from all employers would offer more inputs into the occupational employment and wage estimates; (4) because the data is collected from all employers then attaining the required Federal response rate would be less burdensome. As shown below when data from the smaller county was included in the OES response rate it increased the response rate for the number of units a percentage point higher than the required BLS 75 percent thereby, increasing the number of employees by 0.16 percentage points more above the required rate. This means that more data will be available to produce occupational projections and estimates for the State (See Figure 4).

**Figure 4**

<b>Response Rate without Smaller Company</b>		<b>Response Rate with Smaller Company</b>	
Units	Employment	Units	Employment
75.00%	75.22%	76.00%	75.38%

As demonstrated in the analyses, the incorporation of the Standard Occupational Codes (SOC) and the hourly rate of pay on the Unemployment Wage report had a positive effect in the various departments that would utilize this data. Therefore, it substantiates the need for this enhancement to occur. This enhancement would provide more localized statistical data that would aide in the economic development of businesses in South Carolina. It would also help with performance measures of workforce programs, i. e. Workforce Innovation and Opportunity Act (WIOA) as well as increase the required BLS response rate for the Occupational Employment Statistics program.

### **Implementation Plan**

Once the historical data was gathered and reviewed, I presented the findings to the Executive Director on July 26, 2017. Since she is a strong proponent of having more localized data to make better decisions about the economic development of South Carolina economies, she agreed with my proposal. We decided that now that the South Carolina Automated Tax System (SCATS) is in the process of being revamped into a more modernized system called the State Unemployment Insurance Tax System (SUITS), it would be an appropriate opportunity to include the necessary changes. These revisions would be needed to capture and store the data

now than to wait until after the system has been built. For the implementation stage of the project I instituted the following steps:

- Met with the SUITS programmers on October 23, 2017 to discuss the data items, SOC codes and Hourly Rate of Pay that would need to be included in the programming;
- Confirmed that the occupational and hourly pay fields were already available;
- Determined that the system uses the Occupational Information Network (O\*Net) to populate the occupational field.

This decision to proceed allowed the agency to avoid any unforeseeable costs from programmers and vendors' building the system to include the SOC code field and the Hourly Pay field after the system has been completed. Since the new system already includes these fields there is no additional programming necessary; it is simply a matter of changing the line of programming code to accept the data when it is reported by the employer. This step eliminated the cost of any programming changes and allowing a very short time frame to set everything in place.

Successful implementation of this project would depend on a fully functioning SUITS system that allows employers to enter in the enhanced data along with the other data that is submitted on their quarterly unemployment wage report. The SUITS system and the agency have no major anticipated obstacles in the implementation of this project at this time. However, there is a major obstacle which could obstruct a smooth implementation and that is there would be legislative changes necessary to require employers to report the occupational and wage data with their quarterly wage data. At the time no legislation has been passed to

change the reporting requirements but the Executive Director is strongly pushing for this bill to be passed and she has gained the support of others. There are other potential obstacles which may hamper a smooth implementation. Those obstacles and ways to resolve them are listed below:

- Training for employers/payroll services on how to assign the correct SOC to an employee
  - This may easily be avoided by having a guided pop-up tutorial available on the SUITS system to demonstrate how to select SOC codes.
- Change of user's mindset
  - It is hard for people to change their mindsets when they believe the current process works well or they perceive the enhancement to be more cumbersome and time consuming than the way that they currently report.

Potential resources used to implement the enhancement include: The Executive Director, the SUITS programmers and vendor teams, the UI Department, the WED Department, and the BID department. Once the benefits of these modifications were discussed with all parties; the above key holders agreed that these expansions of data items are necessary. Having the Executive Director's support of the change helped tremendously in bringing all the key holders together. Once the SUITS system goes live in the very near future, UI will provide instructions how to report the SOC codes and Hourly Pay on the Quarterly Wage report during their training of the new system.

### **Evaluation Method**

The process will be evaluated in multiple ways. One way will be through meeting with UI customer service staff six months after the SUITS system goes live to evaluate if they have had any complaints or questions relative to reporting the SOC and Hourly Pay data. Their feedback is essential to see if the inclusion of these data items has caused any extraneous burden to the employers. Another means of evaluation would be to follow-up with the WED department to determine: (1) if they were able to obtain more localized data to use in their economic development analyses when working with employers; and (2) did the data help them when doing needs assessment of training programs that they may need to focus on providing to employees in various areas of the State. The final means of evaluation are in two parts: the first part would be if BID was able to retrieve an extract from the SUITS database that would have the SOC code and hourly pay for employers that could readily be used in the OES operating system; the second part of the evaluation would be to review how the additional employer reporting items affected the required response rate of the OES unit in the BID department. Essentially, BID's ability to retrieve an extract would depend on if the employers reported SOC codes and hourly pay correctly.

### **Conclusion**

In conclusion, the need and desire of more localized data is key to the development of more viable economic development decisions. The UI quarterly wage report submitted by employers are integral to UI, WED, and BID adequately being able to make well-informed decisions about the workforce, which includes not only the employed workers, but also those unemployed and the businesses in South Carolina. Not to mention that it also plays a role in

achieving the mission of the South Carolina Department of Employment and Workforce (DEW); which is to promote and support an effective, customer-driven workforce system that facilitates financial stability and economic prosperity for employers, individuals, and communities. In efforts to better fulfil this mission, there should be an enhancement of those quarterly records which include the SOC codes and the hourly rate of pay. The three core divisions within the agency: The Unemployment Insurance (UI), the Division of Workforce and Economic Development (WED), and the Business Intelligence Department (BID) all would benefit from the enhancement of the quarterly wage report. The more localized the data the more influential its role may be when making economic decisions affecting the state. This data can impact how the agency works with businesses to grow and/or remain viable in good and bad economic times. The improved performance measures which can be derived by this incorporation can be used to attract new businesses to the area and improve the training needed to fill available jobs. It also could affect the required Federal Response rate for the OES statistical program in BID.

## References

The Bureau of Labor Statistics. Bureau of Labor Statistics website. 2018 <https://www.bls.gov>

The South Carolina Department of Employment and Workforce. The South Carolina Department of Employment and Workforce website. 2018 <https://www.dew.sc.gov>

South Carolina Legislature. South Carolina Code of Laws, January 29, 2018.  
<http://www.scstatehouse.gov/code/statmast.php>



## Appendix A Larger Company

first_name	last_name	SSN	Title	Wages	SOC
Chevrolet	Uraeginthus bengalus	xxx-xx-xxxx	Accountant III	\$46.51	13-2011
Audi	Streptopelia decipiens	xxx-xx-xxxx	Accounting Technician	\$30.01	13-2011
Audi	Marmota caligata	xxx-xx-xxxx	Associate Design Engineer	\$20.10	17-2131
Hyundai	Equus burchelli	xxx-xx-xxxx	Quality Control Manager	\$61.75	11-3051
Chevrolet	Francolinus swainsonii	xxx-xx-xxxx	Structural Analysis Engineer	\$25.19	17-3011
Subaru	Uraeginthus granatina	xxx-xx-xxxx	Quality Control Supervisor	\$55.57	11-3051
Ford	Dusicyon thous	xxx-xx-xxxx	Administrative Officer	\$29.44	43-9199
Mitsubishi	Heloderma horridum	xxx-xx-xxxx	Cost Accountant	\$38.11	13-1051
Jaguar	Martes americana	xxx-xx-xxxx	Electrical Engineer	\$28.32	17-2071
Dodge	Sciurus vulgaris	xxx-xx-xxxx	Engineer IV	\$21.87	17-2199
Buick	Pelecanus occidentalis	xxx-xx-xxxx	Chief Design Engineer	\$55.05	17-2051
Ford	Anas platyrhynchos	xxx-xx-xxxx	General Supervisor	\$28.18	51-1011
Mazda	Cynictis penicillata	xxx-xx-xxxx	Boilermaker	\$56.88	47-2011
Mazda	Ovis ammon	xxx-xx-xxxx	Carpenter	\$59.91	47-2031
Dodge	Bucephala clangula	xxx-xx-xxxx	Concrete Finisher	\$31.53	47-2051
Ford	Naja haje	xxx-xx-xxxx	Electrician	\$60.14	47-2111
Mitsubishi	Anathana ellioti	xxx-xx-xxxx	Equipment Mechanic	\$20.18	49-3042
Isuzu	Sciurus vulgaris	xxx-xx-xxxx	Equipment Operator	\$37.03	47-2073
Kia	Sula dactylatra	xxx-xx-xxxx	General Supervisor	\$56.69	47-1011
Mitsubishi	Nectarinia chalybea	xxx-xx-xxxx	Ironworker Reinforcing	\$25.17	47-2171
Ford	Xerus sp.	xxx-xx-xxxx	Construction Support	\$39.07	47-4099
Mercedes-Benz	Lycosa godeffroyi	xxx-xx-xxxx	Mason	\$58.34	47-2051
Isuzu	Oryx gazella callotis	xxx-xx-xxxx	Millwright	\$49.87	49-9044
Subaru	Passer domesticus	xxx-xx-xxxx	Operations Support	\$21.14	43-1011
Mitsubishi	Tragelaphus scriptus	xxx-xx-xxxx	Pipefitter	\$17.40	47-2152
Geo	Sarkidornis melanotos	xxx-xx-xxxx	Survey Crew	\$38.04	17-3031
Ford	Hyaena hyaena	xxx-xx-xxxx	Truck Driver	\$32.98	47-2073
Dodge	Otaria flavescens	xxx-xx-xxxx	Utility	\$53.14	47-2073
GMC	Butorides striatus	xxx-xx-xxxx	Welder	\$37.45	51-4121
Volkswagen	Axis axis	xxx-xx-xxxx	Quality Control Specialist	\$59.11	11-3051
Jeep	Macaca mulatta	xxx-xx-xxxx	Material Manager	\$30.00	17-2131
Pontiac	Loris tardigratus	xxx-xx-xxxx	Information Systems Manager	\$52.55	11-3021
Ford	Dasypus novemcinctus	xxx-xx-xxxx	Engineering Tech	\$37.46	17-3023
BMW	Ara ararauna	xxx-xx-xxxx	Administrative Assistant	\$32.86	43-9199
Dodge	Chlidonias leucopterus	xxx-xx-xxxx	Accountant	\$54.75	13-2011
Audi	Neotis denhami	xxx-xx-xxxx	Human Resources Manager	\$46.81	11-3121
Dodge	Laniaurium atrococcineus	xxx-xx-xxxx	Geological Engineer	\$35.55	17-2151
Chrysler	Vicugna vicugna	xxx-xx-xxxx	VP Accounting	\$45.37	11-3031

Toyota	Vanessa indica	xxx-xx-xxxx	Account Coordinator	\$31.82	43-3031
Ford	Sarkidornis melanotos	xxx-xx-xxxx	Electrical Engineer	\$53.97	17-2071
Mazda	Scolopax minor	xxx-xx-xxxx	Environmental Specialist	\$8.40	19-2041
GMC	Eudyptula minor	xxx-xx-xxxx	Quality Control Specialist	\$29.12	11-3051
Volkswagen	Philetairus socius	xxx-xx-xxxx	Design Engineer	\$17.70	27-1021
Volvo	Equus hemionus	xxx-xx-xxxx	Quality Control Specialist	\$27.81	11-3051
Ford	Phalacrocorax varius	xxx-xx-xxxx	Administrative Assistant IV	\$21.72	43-9199
Nissan	Anastomus oscitans	xxx-xx-xxxx	Senior Financial Analyst	\$57.48	11-3031
Cadillac	Larus dominicanus	xxx-xx-xxxx	Quality Control Specialist	\$30.50	11-3051
Cadillac	Uraeginthus angolensis	xxx-xx-xxxx	Structural Engineer	\$46.06	17-3011
Volkswagen	Ara chloroptera	xxx-xx-xxxx	Chief Design Engineer	\$27.83	17-2131
Chevrolet	Amphibolurus barbatus	xxx-xx-xxxx	Environmental Specialist	\$48.13	17-2081
Ford	Lepus arcticus	xxx-xx-xxxx	GIS Technical Architect	\$50.54	17-3011
Dodge	Felis wiedi or Leopardus weidi	xxx-xx-xxxx	Recruiter	\$51.74	13-1071
Hyundai	Platalea leucordia	xxx-xx-xxxx	Sales Representative	\$26.77	41-3099
Dodge	Vulpes vulpes	xxx-xx-xxxx	Research Nurse	\$43.52	29-1141
Volkswagen	Melophus lathami	xxx-xx-xxxx	Director of Sales	\$42.84	41-3099
Ford	Geochelone elephantopus	xxx-xx-xxxx	VP Accounting	\$12.49	13-3031
Lexus	Macaca fuscata	xxx-xx-xxxx	Software Test Engineer III	\$44.42	15-1199
Mercedes-Benz	Tursiops truncatus	xxx-xx-xxxx	Structural Engineer	\$48.18	17-3011
Chevrolet	Pycnonotus barbatus	xxx-xx-xxxx	Engineer IV	\$21.36	17-2071
Mercury	Centrocercus urophasianus	xxx-xx-xxxx	Design Engineer	\$38.01	17-2141
Infiniti	Macropus agilis	xxx-xx-xxxx	Nuclear Power Engineer	\$55.43	17-2161
Honda	Alopex lagopus	xxx-xx-xxxx	Administrative Assistant IV	\$29.95	43-9199
Toyota	Varanus salvator	xxx-xx-xxxx	General Manager	\$47.21	11-1021
Kia	Lybius torquatus	xxx-xx-xxxx	Web Developer II	\$38.29	15-1134
Chrysler	Varanus salvator	xxx-xx-xxxx	Senior Financial Analyst	\$51.43	11-3031

## Appendix B Smaller Company

first_name	last_name	SSN	Title	Wages	SOC
Delilah	Familia	xxx-xx-xxxx	Boilermaker	\$22.62	47-2011
Veronica	Ram 1500	xxx-xx-xxxx	Carpenter	\$15.89	47-2031
Briggs	S40	xxx-xx-xxxx	Concrete Finisher	\$16.73	47-2051
Sasha	Bonneville	xxx-xx-xxxx	Electrician	\$49.28	47-2111
Giorgia	LS	xxx-xx-xxxx	Equipment Mechanic	\$17.12	49-3042
Chiarra	B-Series	xxx-xx-xxxx	Equipment Operator	\$25.46	47-2073
Sibeal	Paseo	xxx-xx-xxxx	General Supervisor	\$49.39	47-1011
Wallie	Malibu	xxx-xx-xxxx	Ironworker Reinforcing	\$18.17	47-2171
Herman	CR-V	xxx-xx-xxxx	Construction Support	\$30.04	47-4099
Hyacinthia	Montero Sport	xxx-xx-xxxx	Mason	\$36.00	47-2051
Izak	Viper	xxx-xx-xxxx	Millwright	\$39.07	49-9044
Jordan	Corvette	xxx-xx-xxxx	Operations Support	\$10.08	43-1011
Isa	Ranger	xxx-xx-xxxx	Pipefitter	\$11.76	47-2152
Lauree	Fillmore	xxx-xx-xxxx	Survey Crew	\$38.41	17-3031
Theadora	924 S	xxx-xx-xxxx	Truck Driver	\$30.39	47-2073
Candice	GTO	xxx-xx-xxxx	Utility	\$42.94	47-2073
Olin	LS	xxx-xx-xxxx	Welder	\$28.09	51-4121
Trude	Discovery	xxx-xx-xxxx	Quality Control Specialist	\$40.23	11-3051
Emilie	Avalon	xxx-xx-xxxx	Material Manager	\$25.76	17-2131
Trace	Prius Plug-in	xxx-xx-xxxx	Information Systems Manager	\$47.47	11-3021
Kendre	Concorde	xxx-xx-xxxx	Engineering Tech	\$28.86	17-3023
Fern	Trooper	xxx-xx-xxxx	Administrative Assistant	\$30.39	43-9199
Dexter	626 honda	xxx-xx-xxxx	Accountant	\$44.33	13-2011